

SN. 09/091,805

ATTORNEY DOCKET NO. MATS:006

*E1*  
*Cont*

foil type wire, wherein said coreless coil is disposed around the center magnetic leg and separated therefrom by an insulating layer; and

inside and outside terminals respectively coupled to inside and outside ends of the plate-type wire of the coreless coil,

wherein said inside terminal is led outside said closing magnetic core through at least one of:

a through hole in the first common magnetic yoke; and

a through hole in the second common magnetic yoke.--

*E2*

--8. (Amended) The choke coil as defined in claim 1, wherein one of a cavity, a notch, and a hole is provided at a place corresponding to the inside terminal in the other of the first and second common magnetic yokes opposite the through hole formed in one of the first and second common magnetic yokes.--

*sub*  
*F1*

--17. (Twice Amended) A choke coil comprising:

a closing magnetic core including a first magnetic core comprising a center magnetic leg, an outer magnetic leg, and a first common magnetic yoke, and a second magnetic core comprising a second common magnetic yoke in contact with said first magnetic core;

a coreless coil including a plate-type wire comprising at least one of a flat type wire and a foil type wire, wherein said coreless coil is disposed around the center magnetic leg and separated therefrom by an insulating layer; and

inside and outside terminals respectively coupled to inside and outside ends of the plate-type wire of the coreless coil,

*E3*

wherein said inside terminal is led outside said closing magnetic core through at least one of a notch in the first common magnetic yoke and a notch in the second common magnetic yoke, and

wherein the insulating layer includes a positioning protrusion which fits into the one

*E3*  
*(cont)*  
SN. 09/091,805

ATTORNEY DOCKET NO. MATS:006

notch.

18. (Twice Amended) The choke coil as defined in claim 17, wherein the insulating layer comprises a terminal base.--

—20. (Three Times Amended) A choke coil comprising:

a closing magnetic core including a first magnetic core comprising a center magnetic leg, an outer magnetic leg, and a first common magnetic yoke, and a second magnetic core comprising a second common magnetic yoke in contact with said first magnetic core;

a coreless coil including a plate-type wire comprising at least one of a flat type wire and a foil type wire, wherein said coreless coil is disposed around the center magnetic leg and separated therefrom by an insulating layer; and

*E4*  
inside and outside terminals respectively coupled to inside and outside ends of the plate-type wire of the coreless coil,

wherein said inside terminal is led outside said closing magnetic core through at least one of a notch in the first common magnetic yoke and a notch in the second common magnetic yoke, and

wherein said inside terminal is led outside said closing magnetic core through at least one of:

a notch in the first common magnetic yoke;

a through hole in the first common magnetic yoke;

a notch in the second common magnetic yoke; and

a through hole in the second common magnetic yoke,

wherein said insulating layer comprises a terminal base,

wherein said terminal base comprises a base plate and a cylinder, located in a center of the terminal base, wherein said cylinder engages with the center magnetic leg, and

wherein a thickness of a wall of said cylinder of the terminal base varies from a minimum

*Ex*  
*Cont*  
SN. 09/091,805

ATTORNEY DOCKET NO. MATS:006

thickness to a maximum thickness, and wherein a guiding portion is provided at the point of maximum thickness of the wall of said cylinder and the guiding portion engages with the inner terminal of the coreless coil.--

-40. (Amended) A choke coil comprising:

a closing magnetic core including a first magnetic core comprising a center magnetic leg, an outer magnetic leg, and a first common magnetic yoke, and a second magnetic core comprising a second common magnetic yoke in contact with said first magnetic core;

a coreless coil including a plate-type wire comprising at least one of a flat type wire and a foil type wire, wherein said coreless coil is disposed around the center magnetic leg and separated therefrom by an insulating layer; and

inside and outside terminals respectively coupled to inside and outside ends of the plate-type wire of the coreless coil,

*Ex*  
wherein the inside terminal is led outside the closing magnetic core through at least one of a notch and a through hole provided in the first common magnetic yoke; and

wherein a thickness of the second common magnetic yoke is 65-90% of a thickness of the first common magnetic yoke.

41. (Amended) A choke coil comprising:

a closing magnetic core including a first magnetic core comprising a center magnetic leg, an outer magnetic leg, and a first common magnetic yoke, and a second magnetic core comprising a second common magnetic yoke in contact with said first magnetic core;

a coreless coil including a plate-type wire comprising at least one of a flat type wire and a foil type wire, wherein said coreless coil is disposed around the center magnetic leg and separated therefrom by an insulating layer; and

inside and outside terminals respectively coupled to inside and outside ends of the plate-type wire of the coreless coil,

E6  
cont  
} SN. 09/091,805

ATTORNEY DOCKET NO. MATS:006

wherein the inside terminal is led outside the closing magnetic core through at least one of a notch and a through hole provided in the second common magnetic yoke; and

wherein a thickness of the first common magnetic yoke is 60-90% of a thickness of the second common magnetic yoke.--

*Kindly add new claims 42-51 as follows:*

42. (New) A choke coil comprising:

a closing magnetic core including a first magnetic core comprising a center magnetic leg, an outer magnetic leg, and a first common magnetic yoke, and a second magnetic core comprising a second common magnetic yoke in contact with said first magnetic core;

a coreless coil including a plate-type wire comprising at least one of a flat type wire and a foil type wire, wherein said coreless coil is disposed around the center magnetic leg and separated therefrom by an insulating layer; and

inside and outside terminals respectively coupled to inside and outside ends of the plate-type wire of the coreless coil,

wherein said inside terminal is led outside said closing magnetic core through the entire thickness of at least one of a notch in the first common magnetic yoke and a notch in the second common magnetic yoke, and

wherein the insulating layer comprises a positioning protrusion which fits into the one notch.

43. (New) The choke coil as defined in claim 42, wherein the insulating layer comprises a terminal base.

44. (New) The choke coil as defined in claim 17, wherein said first magnetic core and said second magnetic core of said closing magnetic core comprise at least one of an EE-shape, an EI-shape, and a TU-shape.

SN. 09/091,805

ATTORNEY DOCKET No. MATS:006

45. (New) The choke coil as defined in claim 44, wherein said closing magnetic core comprises a manganese ferrite core.

46. (New) The choke coil as defined in claim 17, wherein a magnetic gap is provided between said center magnetic leg of said first magnetic core and said second magnetic core.

47. (New) The choke coil as defined in claim 17, wherein said center magnetic leg of said first magnetic core has a cross section shaped in at least one of a circle, an ellipse, and an oval.

48. (New) The choke coil as defined in claim 17, wherein one of a cavity, a notch, and a hole is provided at a place corresponding to the inside terminal in the other of the first and second common magnetic yokes opposite the notch formed in one of the first and second common magnetic yokes.

49. (New) The choke coil as defined in claim 17, wherein said coreless coil is shaped in at least one of a circle, an oval, and an ellipse responsive to a shape of said center magnetic leg.

50. (New) The choke coil as defined in claim 17, further comprising an insulating sheet provided between the coreless coil and the closing magnetic core.

51. (New) The choke coil as defined in claim 17, wherein the inner terminal and the outer terminal each comprise at least one of a plate-type terminal and a pin-type terminal.--